

AQP2
Purified Mouse Monoclonal Antibody
Catalog # AO2639a**Specification**

AQP2 - Product Information

Application	WB, IHC, ICC, E
Primary Accession	P41181
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1
Calculated MW	28.8kDa KDa

Immunogen

Purified recombinant fragment of human AQP2 (AA: 149-271) expressed in E. Coli.

Formulation

Purified antibody in PBS with 0.05% sodium azide

AQP2 - Additional Information

Gene ID 359

Other Names

AQP-CD; WCH-CD

Dilution

WB~~ 1/500 - 1/2000

IHC~~1:100~500

ICC~~N/A

E~~ 1/10000

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

AQP2 is for research use only and not for use in diagnostic or therapeutic procedures.

AQP2 - Protein Information

Name AQP2 ([HGNC:634](#))

Function

Forms a water-specific channel that provides the plasma membranes of renal collecting duct with high permeability to water, thereby permitting water to move in the direction of an osmotic gradient (PubMed:

target="_blank">15509592, PubMed:7510718, PubMed:7524315, PubMed:8140421, PubMed:8584435). Plays an essential role in renal water homeostasis (PubMed:15509592, PubMed:7524315, PubMed:8140421). Could also be permeable to glycerol (PubMed:8584435).

Cellular Location

Apical cell membrane; Multi-pass membrane protein. Basolateral cell membrane {ECO:0000250|UniProtKB:P34080}; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Cytoplasmic vesicle membrane; Multi-pass membrane protein. Golgi apparatus, trans-Golgi network membrane; Multi-pass membrane protein. Note=Shuttles from vesicles to the apical membrane (PubMed:15509592). Vasopressin-regulated phosphorylation is required for translocation to the apical cell membrane (PubMed:15509592). PLEKHA8/FAPP2 is required to transport AQP2 from the TGN to sites where AQP2 is phosphorylated (By similarity) {ECO:0000250|UniProtKB:P34080, ECO:0000269|PubMed:15509592}

Tissue Location

Expressed in collecting tubules in kidney medulla (at protein level) (PubMed:7510718). Detected in kidney (PubMed:7510718).

AQP2 - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

AQP2 - Images

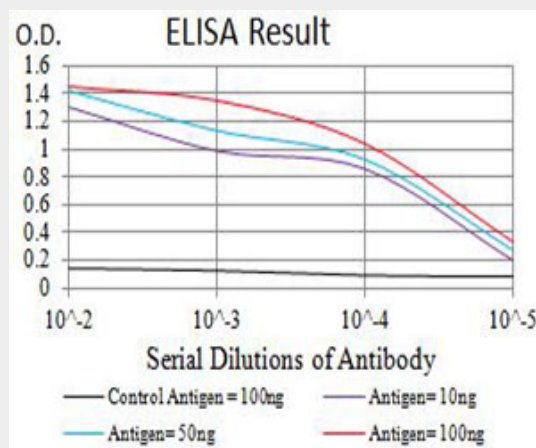


Figure 1: Black line: Control Antigen (100 ng); Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line: Antigen (100 ng)

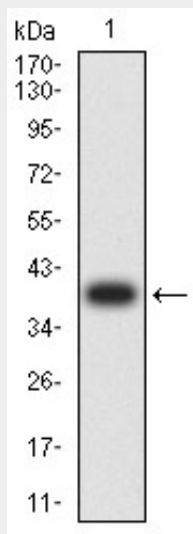


Figure 2: Western blot analysis using AQP2 mAb against human AQP2 (AA: 149-271) recombinant protein. (Expected MW is 39.4 kDa)

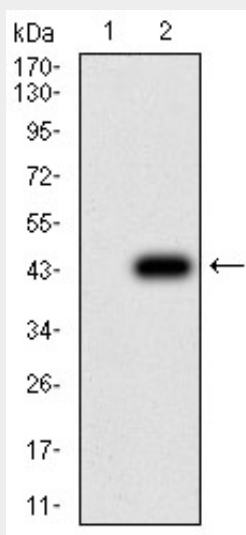


Figure 3: Western blot analysis using AQP2 mAb against HEK293 (1) and AQP2 (AA: 149-271)-hlgGfc transfected HEK293 (2) cell lysate.

AQP2 - References

1.Reprod Fertil Dev. 2016 Mar;28(4):499-506.2.J Transl Med. 2014 May 19;12:133.